Nussinov RNA base pairing algorithm

Compute best the secondary structures with maximal Crick-Watson base pairing of the sequence

GGGACCUUCC

using the Nussinov algorithm.

The recursive scoring formula is:

$$\gamma(i,j) = \max \begin{cases} \gamma(i+1,j) \\ \gamma(i,j-1) \\ \gamma(i+1,j-1) + \delta(i,j) \\ \max_{i<k<j}\{\gamma(i,k) + \gamma(k+1,j)\} \end{cases}$$

where $\delta(i,j)$ is either 1 or 0 depending on whether or not the i-th and j-th letters are complementary. You should be able to traceback your answer to get the structure.

	G	G	G	A	C	C	U	U	C	C
G	0									
G	0	0								
G	X	0	0							
A	X	X	0	0						
C	X	X	X	0	0					
C	X	X	X	X	0	0				
U	X	X	X	X	X	0	0			
U	X	X	X	X	X	X	0	0		
C	X	X	X	X	X	X	X	0	0	
C	X	X	X	X	X	X	X	X	0	0